



US PATENT & TRADEMARK OFFICE

PATENT BIBLIOGRAPHIC DATABASE

[Help](#)[Boolean](#)[Advanced](#)[Number](#)[Order Copy](#)[PTDLS](#)

Searching ALL...

[\[Search Summary\]](#)

Results of Search in ALL for:

TTL/"human embryo*": 3 patents.

Hits 1 through 3 of 3

[Refine Search](#)

TTL/"human embryo*"

Pat. No. Title

1. [5,952,227 Human embryo](#) nic lung fibroblast diploid cell strain suitable for the production of virus and process for the production of varicella zoster virus using same
2. [5,837,543 Human embryo](#) co-culture system and uses thereof
3. [4,816,257 Method for producing an in vivo environment suitable for human embryo transfer](#)

Search Summary

TTL/"human embryo*": 3 occurrences in 3 patents.

Search Time: 0.2 seconds.





US PATENT & TRADEMARK OFFICE PATENT BIBLIOGRAPHIC DATABASE

Help

Full Text

Boolean

Advanced

Number

Order Copy

PTDLs



(2 of 3)

United States Patent

5,837,543

Conway-Myers, et. al.

Nov. 17, 1998

Human embryo co-culture system and uses thereof

Abstract

The present invention provides a *human embryo* co-culture system comprising a suspension of cultured human tubal epithelial cells. Also provided is a method of improving the pregnancy rate of a female undergoing in vitro fertilization, comprising the steps of: contacting an oocyte from said female with a monolayer of cultured human tubal epithelial cells; inseminating the oocyte; and transferring an embryo back to said female.

Inventors: **Conway-Myers; Barbara-Ann** (Helena, AL); **Steinkampf; Michael P.** (Birmingham, AL).

Assignee: **UAB Research Foundation** (Birmingham, AL).

Appl. No.: **861,888**

Filed: **May 22, 1997**

Related U.S. Application Data

Continuation-in-part of Ser No. 409,650, Mar. 24, 1995, abandoned.

Intl. Cl. :

C12N 5/00, A61B 17/435, A61D 7/00

Current U.S. Cl.:

**435/373; 435/366; 435/378; 435/404; 435/406;
600/33; 600/34**

Field of Search:

435/366, 373, 378, 404, 406; 600/33, 34

References Cited | [Referenced By]

U.S. Patent Documents

5,213,979

May, 1993

First et al.

435/373

Other References

Bongso and Fong. Current Opinion in Obstet. and Gyn. vol. 5, pp. 585-593, 1993.

Bongso et al. Human Reprod. vol. 8 (8), pp. 1155-1162, 1993.

Bongso et al., Human Reprod. vol. 4 (5), pp. 486-494, 1989.

Henriksen et al. Human Reprod. vol. 5 (1), pp. 25-31, 1990.

Irvine Scientific --Manufacturer's Brochure, 1993.

Hycor Scientific --Manufacturer's Brochure, 1994.

Primary Examiner: Lankford, Jr.; Leon B.

Assistant Examiner: Tate; Christopher R.

Attorney, Agent or Firm: Adler; Benjamin Aaron

12 Claims, 4 Drawing Figures



(2 of 3)



US PATENT & TRADEMARK OFFICE

PATENT BIBLIOGRAPHIC DATABASE

[Help](#) [Full Text](#) [Boolean](#) [Advanced](#) [Number](#) [Order Copy](#) [PTOLs](#)



(3 of 3)

United States Patent**4,816,257****Buster, et. al.****Mar. 28, 1989****Method for producing an in vivo environment suitable for *human embryo* transfer****Abstract**

A method for producing, in a functionally agonadal human female body, an environment suitable for the implantation, nutrition, and development of an embryo, comprising the placement of at least one carrier containing at least one releasable steroid hormone into the vagina of the human female.

Inventors: Buster; John E. (Rancho Palos Verdes, CA); Simon; James A. (Norfolk, VA).

Assignee: Research & Education Institute, Harbor-UCLA Medical Center Inc. (Torrance, CA).

Appl. No.: 92,069

Filed: Sept. 2, 1987

Related U.S. Application Data

Continuation of (including streamline cont.) Ser. No. 778,559, Sept. 20, 1985, abandoned.

Intl. Cl. :

A61K 9/00, A61K 31/56

Current U.S. Cl.:

**424/430; 424/431; 424/432; 514/170; 514/899;
514/967; 600/33; 600/34; 604/890.1**

Field of Search:

**424/430-433; 514/899, 967, 170; 128/130;
604/890**

References Cited | [Referenced By]

U.S. Patent Documents

3,545,439	Dec., 1970	Duncan	128/130
3,656,483	Apr., 1972	Rudel	128/130
3,755,575	Aug., 1973	Lerner	514/170
3,845,761	Nov., 1974	Zaffaroni	128/130
3,896,819	Jul., 1975	Zaffaroni	128/130
<u>3,957,982</u>	May, 1976	Lachnit-Fixson et al.	514/170
<u>4,071,623</u>	Jan., 1978	Van der Vies	514/170
4,091,028	Sept., 1981	Vorys	514/899
<u>4,323,548</u>	Apr., 1982	Scherm	514/967
<u>4,425,339</u>	Jan., 1984	Pitchford	514/170
<u>4,439,432</u>	Mar., 1984	Peat	514/899
<u>4,551,148</u>	Nov., 1985	Riley et al.	514/967

Foreign Patent Documents
2034182 Jun., 1980 GB

Other References

Lutjen, P., et al, "The Establishment and Maintenance of Pregnancy Using In vitro Fertilization and Embryo Donation in a Patient with Primary Ovarian Failure," *Nature*, 307, 174 (1984).

Bustillo, M. et al., "Nonsurgical Ovum Transfer as a Treatment in Infertile Women: Preliminary Experience," *J. Amer. Med. Assoc.* vol. 251, No. 9, 1171 (1984).

Hodgen, G. D., "Surrogate Embryo Transfer Combined with Estrogen-Progesterone Therapy in Monkeys," *J. Amer. Med. Assoc.*, 250, 2167 (1983).

Folkman, J., et al, "The Use of Silicone Rubber as a Carrier for Prolonged Drug Therapy", *J. Surg. Res.*, 4, 139 (1964).

Kind, F. A., et al, "Sustained Release Hormonal Preparations," *Acta Endocrinol. Suppl.* (Copenh.), 151, 55:5 (1971).

Hunter, D. J. S., et al, "Plasma Levels of Estrogen, Luteinizing Hormone and Follicle Stimulating Hormone Following Castration and Estradiol Implant," *Obstet. Gynecol.*, 49, 180 (1977).

Loeber, J., et al, "The Influence of Estrogen Therapy on Triglycerides: Importance of the Choice of Substance and Route of Administration," *Nouv. Presse Med.* 6, 2747 (1977).

Whitehead, M. I., et al, "Adsorption and Metabolism of Oral Progesterone," *Br. Med. J.*, 280, 825 (1980).

Nillius, S. J., et al, "Plasma Levels of Progesterone After Vaginal, Rectal or Instramuscular Administration of Progesterone," *Am. J. Obstet. Gynecol.*, 110, 470 (1971).

Katz, Z., et al, "Teratogenicity of Progestogens Given During the First Trimester of Pregnancy," *Obstet. Gynecol.* 65, 775 (1983).

Ressegueie, L. J., et al, "Congenital Malformations Among Offspring Exposed in Utero to Progestins, Olmsted County, Minnesota, 1936-1974," *Fertil. Steril.*, 43, 514 (1985).

Mishell, D. R., "Absorption of Steroids Through Silastic in Animals and Humans-Results of Studies in Humans," *Advances in Planned Parenthood*, 5, 151 (1970).

Sivin, I., et al, "A Multicenter Study of Levonorgestrel-estradiol Contraceptive Vaginal Rings. I. Use Effectiveness. An International Comparative Trial," *Contraception*, 24, 341 (1981).

Mishell, D. R. et al, "Clinical Performances and Endocrine Profiles with Contraceptive Vaginal Rings Containing a Combination of Estradiol and D-Norgestrel," *Am. J. Obstet. Gynecol.*, 130, 55 (1978).

Toivonen, J., "Pituitary and Gonadal Function During the use of Progesterone-or Progesterone-estradiol-releasing Vaginal Rings," *Int. J. Fertil.*, 25, 106 (1980).

Mishell, D. R. et al, "Inhibition of Ovulation With Cyclic Use of Progesten-Impregnated Intravaginal Devices," Am. J. Obstet. Gynecol., 113 927 (1972).

Johansson, E. D. B. et al, "The Effect of Progestin R2323 Released From Vaginal Rings on Ovarian Function," Contraception, 12 299 (1975).

Mishell, D. R. et al, "Contraception By Means of a Silastic Vaginal Ring Impregnated With Medroxyprogesterone Acetate," Contraception 107, 100 (1970).

Mishell, D. R., et al, "Contraceptive Effect of Varying Dosages of Progestogen in Silastic Vaginal Rings," Fertil. Steril, 21, 99 (1970); and Mishell, Footnote 13, infra.

Stumpf, P. G., et al, "Development of a Vaginal Ring for Achieving Physiologic Levels of 17b-estradiol in Hypoestrogenic Women," J. Clin. Endocrinol. Metab., 54, 208 (1982).

Yen, S. S. C., et al, "Circulating Estradiol, Estrone and Gonadotropin Levels Following the Administration of Orally Active 17b-estradiol in Postmenopausal Women," J. Clin. Endocrinol. Metab., 40, 518 (1975).

Langren, B. M. et al, "Hormonal Profile of the Cycle in 68 Normally Menstruating Women," Acta Endocrinologica 94, 89 (1980).

Csapo, Am J. Obstet. Gynecol. 115. 759 (1973).

Primary Examiner: Griffin; Ronald W.

Attorney, Agent or Firm: Drucker & Sommers

18 Claims, 2 Drawing Figures



(3 of 3)